Classification: Electricity Generation System Specialist I	**Position No.** 8100-4841-017
CBID: R09	**Office:** Supply Analysis
Date Prepared: September 18, 2018	**Division:** Energy Assessments
KEY: (E) IS ESSENTIAL, (M) IS MARGINAL	

Under the general supervision of an Energy Resources Specialist III (S) in the Supply Analysis Office and performing at the full journey level, the incumbent performs and evaluates engineering and economic analysis related to the development, interconnection, and operation of combined heat and power generation (CHP) and its impact on the electricity system in California. These assignments are varied, complex, technical, and require the application of knowledge of central and distributed generation renewable and non-renewable plant design, operations, as well as economics and finance of power plant development. The incumbent must be able to evaluate the impact of CHP development on the operation of the entire California electricity system from both an engineering (impact on need for distribution and transmission), economic (financial costs and benefits), environmental impacts related to meeting state goals to reduce greenhouse gas (GHG) reductions, and influence CHP generation has on California refinery activity, reliability, and economic health.

WORKING CONDITIONS. Work is performed primarily in an office, conference room, and hearing room environment and may require standing and walking as well as sitting for long periods of time. Work area is well lighted and ventilation is adequate. The noise level may be often high. Some travel is required to attend off-site meetings. Additional hours beyond an eight-hour workday or forty-hour workweek may be required. While performing the duties described below, the incumbent will be required to work alone and/or in a team environment, utilizing a personal computer and appropriate Commission software such as word processing, electronic mail, Internet and analytical models; participate in meetings with other staff and other agencies.

DUTIES AND RESPONSIBILITIES:

45% Develops, performs, and evaluates assessments of the technical, economic, and market potential of CHP and combined cooling heat and power (CCHP) in the commercial and industrial sectors, as well as multifamily residences in California. Analyzes the impact of electricity and natural gas prices on CHP, CCHP, and refinery operations. Evaluates how tax incentives and subsidies affect the development of new and repowered CHP facilities. Identifies the most significant technology and regulatory barriers that continue to discourage CHP development and make recommendations for required revenue streams, and policies to address these barriers. Reviews and reports on existing tariffs and contracts that are available to CHP developers in investor-owned utility and publicly owned utility service territories. Develops characteristics of refinery cogeneration facilities and identify refinery operational changes and benefits resulting from CHP use. Evaluates the impact of these new resources on utility reliability and adequacy, as well as potential benefits to increase micro-grid development in California. Assesses the need for modern infrastructure upgrades to accommodate increased penetration of CHP at the distribution level. (E)

20% Reviews, evaluates, and performs assessments analyzing the impacts of increased electric vehicle ownership to localized electrical distribution systems. Identifies possible methods to mitigate these impacts including, but not limited to, increased use of distributed energy resources and micro-grids. Reviews and reports on utility distribution system upgrades, micro-grid system integration, and distributed energy resource installations designed to accommodate increased electric vehicle use and overall system resiliency. Evaluates and performs assessments analyzing the economic and resiliency benefits in integrating distributed energy resources with electric vehicles in micro-grid arrangements. (E)

20% Provides timely technical review and evaluations as specified in the California Energy Commission Guidelines for Certification as an Eligible Customer-Generator of a Combined Heat and Power System Pursuant to the Waste Heat and Carbon Emissions Reduction Act (Public Utilities Code Section 2840-2845). Upon completion of the evaluation, the incumbent provides a written recommendation that indicates the applicant's success in meeting the requirements detailed in the guidelines, as well as providing subsequent annual reviews of all certified projects to ensure they remain in compliance with the guidelines. (E)

10% Prepares written reports and makes oral presentations on findings, conclusions, and recommendations from economic, environmental and policy analysis. Participate in briefings, meetings, workshops, hearings, technical conferences, and other public forums. Assists in planning, organizing, and conducting public events to share information with electricity market participants, representatives of other government agencies, and the general public. (E)

5% Performs other duties as required consistent with the specifications of this classification. (M)

SIGNATURES	
I Certify That I Am Able To Perform, With Or Without The Assistance Of A Reasonable Accommodation, The Essential Job Duties Of This Position	
VACANT Date Electricity Generation System Specialist I	RYAN EGGERS Date Energy Resources Specialist III (S)